On the Subfamilies Antichlorinæ and Charideinæ of the Lepidopterous Families Zygænidæ and Arctiidæ. By ARTHUR G. BUTLER, F.L.S., F.Z.S., &c.

[Read June 17, 1875.]

(PLATE XXIX.)

In a former communication to the Society I considered the arrangement and structure of the subfamilies of typical Zygænidæ; I shall now proceed to investigate the aberrant subfamily Antichlorinæ and the Arctiidæ of the group Charideinæ, hitherto referred by entomological authors to the Zygænidæ. Both of these subfamilies are characterized by having the usual number of branches to the median nervure of secondaries; but the Charideinæ are of a more robust, and consequently less typically Zygænoid form; the arrangement and branching of the wing-veins are altogether more like the Arctiidæ; and, as a rule, the wings are more densely clothed with scales. The larvæ, so far as we know them, are also very hairy, and ornamented with long diverging tufts. Owing to loss of last page of MS., the Antichlorinæ are referred erroneously to the Arctiidæ.

Family ZYGÆNIDÆ. (Aberrant group.)

Subfamily Antichlorin E, Butler.

Genus Mallostethus, n. gen.

Palpi rather long; thorax broad, and fluffy in appearance; abdomen gradually narrowing backwards to the anus, which has a terminal tuft of short hairs: wings semiopaque; lower radial of primaries branching from the third median branch; subcostals of secondaries forming a simple fork from upper extremity of discoidal cell; median branches three in number, the first emitted before the end of cell, the second and third forming a fork from the lower extremity of the cell, the false radial and its recurrent nervure running from the base of the median nervure through the cell, along the edge of the third median branch to outer margin.

Type M. metamelas, Walker.

1. Mallostethus metamelas = Glaucopis (Pseudomya) metamelas, Walker, Lep. Het. i. p. 145. n. 8.

Pará (Grahame & Bates).

Type, B.M.

Genus Pseudaclytia, n. gen.

Allied to the preceding genus, but the thorax less robust; the primaries opaque; the subcostal branches of secondaries forking from a footstalk; the third median branch of secondaries with a fork-branch running into the false radial, and doubtless representing the true radial nervure; a false nervure running from the margin, exterior to and parallel to the submedian nervure, but not reaching the base of the wing.

Type P. opponens, Walker.

1. PSEUDACLYTIA OPPONENS=Pampa opponens, Walker, Lep. Het. Suppl. i. p. 100.

Ega (Bates).

Type, B.M.

This species has somewhat the aspect of the genus Aclytia.

Genus Napata, Walker.

 NAPATA TERMINALIS=Euchromia (Napata) terminalis, Walker, Lep. Het. i. p. 231.

Pernambuco (J. P. G. Smith), Brazil (Stevens).

Type, B.M.

? 2. N. LEUCOTELUS, Walker, MS.=Euchromia (Napata) terminalis, var., Walker, Lep. Het. i. p. 232.

Honduras and Venezuela (Dyson).

Type, B.M.

This form has the transparent area of the primaries much more distinct than in the typical *N. terminalis*, as also the dorsal white line on the abdomen.

Genus Chloropsinus, n. gen. Pl. XXIX. fig. 1.

In all respects (excepting neuration) closely resembling *Pseudo-sphenoptera*; but the secondaries with the subcostals branching from a very short footstalk; the discocellulars forming a sharp angle, through which the false nervure runs from base of median nervure to outer margin; the median nervure with three branches, the first emitted before the end of cell, the second and third forking from the end of cell.

Type Chloropsinus lanccolatus, n. sp.

1. Chloropsinus lanceolatus, n. sp.

Exactly like Pseudosphenoptera basalis in pattern and colouring, but of a narrower and more slender build: primaries above steel-blue, with the base and outer margin brown; two basal hyaline white spots separated by the median nervure; secondaries dark brown, base hyaline; body brown, face spotted with white; back of head, pterygodes, and back of thorax spotted with metallic green; abdomen with two basal white spots, two or three dorsal green spots on the hinder segments and a green lateral interrupted streak along each side; antennæ black-brown, white at base; wings below dark brown, with diffused metallic green streaks along the costal and median nervures; body brown below, sides of palpi, front coxæ, and a row of spots along each side of venter metallic green: basal segment of abdomen and hind coxæ white; tarsi ochreous: expanse of wings 43 millius.

St. Paulo (Bates).

Type, B.M.

This species may eventually turn out to be the male of *Pseudo-sphenoptera*; if so, that genus (which I have considered as an aberrant group of the Euchromiinæ) will have to be referred to the present subfamily, in which it will still form an aberrant genus on account of the absence of the third median branch in secondaries.

Genus Illipula, Walker. Pl. XXIX. fig. 2.

ILLIPULA ALECTON = Sphinx alecton, Cramer, Pap. Exot. iv. pl. 382.
 D.

Sesia melanochlorus, Sepp, Surin. p. 145, pl. 69.

Brazil (Mornay).

B.M.

The larva of this species is figured by Sepp; it is white, and clothed with long, slender, white hairs, but has no tufts of bristles at either extremity. Sepp remarks respecting it:—

"Nous trouvions cette Chenille velue couverte de poils longs et blancs, dont nous donnons la figure sur la feuille inférieure, au mois de Février sur la feuille d'un végétal, qu'on nomme Tayer indien au Surinam, et nous la découvrîmes six mois après sur les feuilles des Jurea-bessies, mais nous ignorons la dénomination Latine de ces deux végétaux."

2. I. Dolosa = Euchromia (Pampa) dolosa, Walker, Lep. Het. i. p. 238.

Pernambuco (J. P. G. Smith.)

Type, B.M.

It is a curious fact that although the two species above quoted are placed consecutively in Mr. Walker's Catalogue, he failed to see that they were congeneric.

Genus IXYLASIA, n. gen. Pl. XXIX. fig. 8.

Chiefly differs from *Illipula* in its much greater size, more robust body and antennæ, a brush of hairs on each side of the basal

segment of the abdomen; and the third median branch of secondaries being emitted from the middle of the second.

Type I. trogonoides, Walker.

1. IXYLASIA TROGONOIDES = Aclytia trogonoides, Walker, Lep. Het. Suppl. i. p. 101.

Brazil (Gardner).

Type, B.M.

Genus Procalypta, n. gen.

Primaries very elongate, with hyaline spots, costal margin undulated; the second and third median branches and the lower radial emitted close together at end of cell, and far distant from the first median branch; secondaries subtriangular, apical half of costal margin excavated; subcostal vein with two branches, forking off from anterior extremity of discoidal cell; discocellulars strongly angulated, separated by the false nervure, which runs through the cell to near the base of the median nervure; median nervure with three branches, the first emitted before the end of cell, the second and third emitted together at lower extremity of cell.

Type P. subcyanea, Walker.

 PROCALYPTA SUBCYANEA = Euchromia (Endera) subcyanea, Walker, Lep. Het. i. p. 230. n. 48.
 Mexico (Hartweg).

Type, B.M.

Genus Pterygopterus, n. gen. Pl. XXIX. fig. 10.

Allied to the preceding genus, and to Antichloris; wings opaque; secondaries with the anal angle distinctly caudate, and both inner and outer margins slightly excavated, the veins nearly as in the preceding genus, but the front of the cell projecting forward, so shortening the subcostal branches and lengthening the upper discocellular; the false radial also forking from the centre to the apex of second subcostal branch (this may, however, be a natural wing-fold).

Type P. clavipennis, n. sp.

1. PTERYGOPTERUS CLAVIPENNIS, n. sp.

Body dark brown; frons, the palpi in some lights, crest, a few scales at back of head and at anterior margin of prothorax, a spot on the shoulders, a longitudinal litura on metathorax, the lateral drum-like expansions and an interrupted line along each side of the abdomen metallic green; antennæ black, tipped with orange; primaries with the costal half dark sericeous olive-green, purplish at its borders, with the veins at base, and the median vein between its branches bright bronzy metallic green; inferior and external area cho olate-

brown; secondaries with the costal half bright metallic green; anal half brown, with the veins, outer margin, and tail blue-green; wings dark shining blue-green; the apex of primaries (excepting the nervures) broadly dark brown: body black; coxæ of first four legs bright metallic green, hind pair shining yellowish cream-colour, remainder of legs in certain lights dark blue-green; venter in some lights dark green: expanse of wings 47 millims.

Espiritu Santo (Higgins).

Type, B.M.

This remarkable species forms a natural transition from the *Illipula* to the *Antichloris* group of genera; it is, however, easily distinguished from all Zygænidæ by the peculiar shape of the secondaries.

In the succeeding genera the first branch of the subcostal nervure springs freely from the discoidal cell.

Genus Ceramidia, n. gen. Pl. XXIX. fig. 3.

Wings opaque; secondaries with subcostal branches emitted independently of each other; the discocellulars oblique, angulated; the median branches emitted near together close to the lower extremity of the cell; recurrent false nervure not reaching to the base of the cell: body rather slender; abdomen cylindrical, smooth, with a short terminal tuft of hair in the males.

Type C. funipennis, Walker.

1. CERAMIDIA FUMIPENNIS = Euchromia (Pampa) fumipennis, Walker, Lep. Het.i. p. 241. n. 66.

Ega (Bates).

Type, B.M.

2. C. CATALEUCA, n. sp.

Like *C. fumipennis* above; basal area of primaries below paler; secondaries below with a broad central creamy-white band from costa to abdominal margin: expanse of wings 35 millims.

E. Peru (Degand).

Type, B.M.

Genus Passineura, n. gen. Pl. XXIX. fig. 4.

Nearly allied to the preceding genus, but the cell of secondaries projecting prominently forwards at its anterior extremity, thus shortening the subcostal branches and increasing the angle of the discocellulars; antennæ rather thicker.

Type P. fusiformis, Walker.

 Passineura fusiformis=Pampa fusiformis, Walker, Lep. Het. vii. p. 1629.

Tapajos (Bates).

B.M.

Genus Antichloris, Hübner. Pl. XXIX. fig. 5.

 Antichloris Eriphia=Zygæna eriphia, Fabricius, Sp. Ins. ii. p. 163. n. 31.

Pará (Bates).

B.M.

Antichloris phemonoë, Hübner, Zutr. figs. 15, 16, is synonymous with the above; but A. caca is distinct.

2. A. Scudderii, n. sp.,

Closely allied to A. eriphia, but the wings and antennæ purplish chocolate-brown instead of dark shining green; the collar with larger lateral crimson spots; the abdomen duller in colour; the secondaries are also more acuminate at apex: below the differences are similar, excepting that the costal area of secondaries is dark shining green: expanse of wing 40 millims.

Santarem (Bates).

Type, B.M.

I have named this species after Mr. Samuel Scudder, the well-known American entomologist.

3. A. CACA, Hübner, Samml. exot. Schmett. Zutr. figs. 133, 134. Brazil (Bates). Type, B.M.

This is larger and darker than A. eriphia; the secondaries are less constricted at apex; and the costal area is sordid whitish instead of silvery white; the abdomen is also bronzy, with the lateral and dorsal streaks scarcely perceptible; the wings, however, are similar on the under surface.

 A. ANTHRACINA=Euchromia (Amycles) anthracina, Walker, Lep. Het. i. p. 253.

Venezuela (Walker).

Type, B.M.

Walker confounded this species with examples of another genus, being doubtless misled by a certain amount of similarity in coloration.

5. A. QUADRICOLOR=Charidea quadricolor, Walker, Lep. Het. Suppl. p. 1867.

Brazil (Walker).

Type, B.M.

Here, again, Mr. Walker was misled by the colouring of the insect, the secondaries having a crimson streak from apex to middle of disk, and a crimson outer margin.

Genus Eriphia, Felder. Pl. XXIX. fig. 6.

- 1. ERIPHIA USTULATA, Felder, Reise der Nov. Lep. iv. pl. cii. fig. 17. Pacho, New Granada (Janson); Bogota (Stevens). B.M.
- 2. E. TRACTIPENNIS, n. sp.

Allied to the preceding; wings darker, narrower, and more elongated; back of head crimson; pterygodes without metallic bronzy streaks; metallic spots on abdomen of a greener tint; a large metallic-green (instead of pale tawny) patch covering the end of cell and the area immediately beyond it; basicostal metallic-green patch on secondaries larger; coxæ of front pair of legs scarlet, the remaining coxæ and a central spot on third segment of venter silvery white: expanse of wings 40 millims.

Chontales, Nicaragua (Janson).

Type, B.M.

A well-marked and very handsome species.

Family ARCTIIDÆ.

Subfamily CHARIDEINE.

Genus Aclytia, Hübner. Pl. XXIX. fig. 7.

 Aclytia simulatrix = Pelochyta simulatrix, Walker, Lep. Het. Suppl. i. p. 106,

Bogota.

Evidently allied to A. halys.

 A. HALYS = Sphinx halys, Cramer, Pap. Exot. iv. pl. 357. fig. C.

Santarem (Bates).

B.M.

3. A. FLAVIGUTTA = Euchromia (Aclytia) flavigutta, Walker, Lep. Het. i. p. 246.

Brazil (Stevens).

Type, B.M.

This species is perfectly distinct from A. halys in the pattern of the primaries, and from A. heber in the restricted hyaline area of the secondaries.

- 4. A. HEBER = Sphinx heber, Cramer, Pap. Exot. iii. pl. 287. f. A. Santarem (Bates).

 B.M.
- 5. A. PUNCTATA, n. sp.

Euchromia (Aclytia) heber, Walker (nec Cramer), Lep. Het. i. p. 244. n. 75.

This species differs from the preceding in its greater size, broader wings, the paler colour of the thorax and primaries; the darker metallicgreen bands on the abdomen; the yellow spot on the primaries reduced to a point and placed about halfway between the base and apex; the narrower black apical border of secondaries; and on the underside in the paler apical half of primaries, the greyish tint of the internal area, and the elongate triangular form of the yellow spot: expanse of wings 32 millims.

Honduras (Dyson).

Type, B.M.

Genus Charidea, Dalman (Herrich-Schäffer). Pl. XXIX. fig. 11.

 CHARIDEA SUBMACULA = Euchromia (Automolis) submacula, Walker, Lep. Het. i. p. 214. n. 13.

Venezuela (Dyson).

Type, B.M.

I believe this to be a mimic of the genus *Histiæa*; the two constantly come together in collections.

2. C. Arrogans = Euchromia (Automolis) arrogans, Walker, Lep. Het. i. p. 214. n. 14.

Venezuela (Becker), Veragua (Salvin).

Type, B.M.

3. C. SPLENDIDA, Herrich-Schäffer, Auss. Schmett. fig. 232. Venezuela.

4. C. Alonzo, n. sp.

Closely allied to *C. fulgida*, but with a pale quadrifid crimson streak crossing the disk obliquely from subcostal nervure to second median branch; the scarlet border of secondaries terminating more abruptly towards apex; primaries below with the metallic-green streak restricted to the base of the wing; the discoidal scarlet spot larger, but paler; the postmedian band of upper surface broad and well defined: expanse of wings 42 millims.

Venezuela (Dyson).

Type, B.M.

This is the supposed variety of *C. fastuosa* indicated in Walker's list.

5. C. IMOGENA, n. sp.

Allied to *C. fulgida*, but with a trifid rosy streak crossing the disk very obliquely from base of upper radial to just below second median branch; the scarlet border of secondaries much wider, and terminating abruptly towards apex; all the metallic-green colouring more golden in hue; the basal area of secondaries more decidedly blue: primaries below with the metallic areas golden green; the scarlet discoidal spot replaced by a larger rose-coloured spot; no green spot beyond the cell, but a broad oblique rosy band as in *C. Alonzo*;

border of secondaries as above, but rosy: expanse of wings 45 millims.

Peru.

Type, B.M.

Nearly allied to the preceding species.

- 6. C. fulgida, Herrich-Schäffer, Auss. Schmett. i. 235. Euchromia (Automolis) fastuosa, Walker, Lep. Het. i. p. 215. n. 13. Jamaica (Children), Brazil (Mornay).
- 7. C. CINCTIPENNIS, Walker, Lep. Het. Suppl. i. p. 97.
 Bogota (Stevens). Type, B.M.
- 8. C. SCINTILLANS = Euchromia scintillans, Butler, Lep. Exot. pl. lxi. fig. 16.

Cartago, Costa Rica (Van Patten).

towards the base, suffused with vellowish.

Type, B.M.

- 9. C. fulgens, Herrich-Schäffer, Auss. Schmett. i. fig. 234. Begota (Stevens). Three specimens, B.M.
- 10. C. MICANS, Herrich-Schäffer, Auss. Schmett. i. fig. 233.
 Bogota (Stevens). Four specimens, B.M.
 Two of our examples have the spots on primaries very pale, and,

11. C. HURAMA, n. sp.

Body above purplish black; head and thorax spotted and streaked, and the abdomen broadly banded with metallic blue-green: primaries blackish brown, base metallic green; a large oval interno-median spot, bounded above by the median nervure, an elongated subcuneiform patch, placed obliquely to the above-mentioned spot and almost filling the discoidal cell, and a broad, oblique, trifid fasciole, cut by the third median and lower radial veins, all pale rose-colour; secondaries shining purple, with the costa brown; fringe rosy whitish; body below nearly as above; primaries with the interno-median and discoidal patches enlarged and fused, deep rose-colour; postmedian fasciole widened and deeper in colour; interno-basal area of wings shot with steel-blue; secondaries purple, metallic green at the base, with a broad costal and external blackish border; fringe rosy whitish; expanse of wings 44 millims.

Ecuador (Buckley).

Type, B.M.

A very beautiful and distinct species.

12. C. Bella = Glaucopis bella, Guérin, Icon. Regn. Anim. p. 502. Charidea hæmatodes, Boisduval, Lép. Guat. p. 82. Orizaba, Mexico (Botteri).

B.M.

13. C. BIVULNERA, Grote.

Orizaba, Mexico (Botteri).

B.M.

Is not this lovely little insect the male of C. bella?

 C. GLORIOSA = Euchromia (Automolis) gloriosa, Walker, Lep. Het. i. p. 215.

Guatemala (Sallé).

Type, B.M.

Nearly allied to C. bivulnera.

15. C. Jucunda = Euchromia (Automolis) jucunda, Walker, Lep. Het. p. 16.

Charidea fastuosa, Ménétriés, Cat. ii. t. xiv. fig. 8.

Brazil (Becker), Rio (J. P. G. Smith), Espiritu Santo (Stevens).

Type, B.M.

I have little doubt that Cyanopepla and Entomis of Felder are identical with Charidea. Cyanopepla eucyane, which is in Mr. Druce's collection, does not differ in structure.

Genus Heliura, n. gen. Pl. XXIX. figs. 13, 17.

Allied to Charidea; males generally with a broad caudate termination to the anal angle of posterior wing, emitting from the back a radiating compressed brush of stiff hairs; the subcostal nervure with three branches, the first ill-defined in the female, emitted before the end of the cell, the second and third forming a fork from the anterior extremity; discocellulars forming a sickle-shaped line, the upper one being considerably longer than the lower and distinctly inarched; second and third median branches emitted together from a footstalk at posterior extremity of cell.

Type H. solicauda, n. sp.

1. Heliura apicalis, Herrich-Schäffer, Auss. Schmett, i. f. 236. Euchromia albiplaga, Walker, Lep. Het. i. p. 218.

Brazil (Mornay), Venezuela (Dyson).

B.M.

This species (Pl. XXIX. fig. 9) is somewhat abnormal, the sexes being apparently alike and somewhat resembling *Charidea* in their eminently metallic coloration; it is, however, so nearly allied to *H. thetis* and *tenens* in other respects that I have not thought it worth while to place it in a separate genus. Mr. Walker erroneously referred it to his genus *Histiæa*.

- 2. H. CAPYS=Zygæna capys, Fabricius, Sp. Ins. ii. p. 166. n. 48. Surinam.
- 3. H. LACTEINOTA, n. sp. Euchromia (Dipænæ) capys, var.? Walker, Lep. Het. i. p. 262. Tapajos and Ega (Bates). Type, B.M.

Readily distinguishable from *H. capys* by the transparent area in secondaries.

4. H. THETIS = Sphinx thetis, Linnæus, Mant. i. p. 539.

Zygæna thoas, Fabricius, Sp. Ins. ii. p. 166, n. 53.

Q. Venezuela (Dyson).

B.M.

This is E. thetis, var.? of Walker.

5. H. LENEUS=Sphinx leneus, Cramer, Pap. Exot. iii. pl. 248, f. G. S. Demerara (Bowerbank).

This is *E. thoas*, var.? of Walker; it differs from the preceding species in the less brilliant metallic colouring of the abdomen, the smaller transparent area of secondaries, and the smaller white spot at apex of primaries.

 H. TETRAGRAMMA = Euchromia (Eucereeon) tetragramma, Walker, Lep. Het. i. 268.

♂: Santarem (Bates).

Type, B.M.

7. H. PYRRHOSOMA, n. sp.

Larger than the preceding species, the wings longer, the hyaline spots towards apex of primaries united, the secondaries with a narrower blackish border: back of head dull ochraceous, the pterygodes margined and the thorax longitudinally streaked with the same colour; coxæ, trochanters, and distal half of femora red, the remainder of the legs brown: expanse of wings 32 millims.

Pará (Graham).

Type, B.M.

Easily distinguished from *H. tetragramma* by its superior size and the colouring of the legs, the tibiæ of that species being alternately spotted with reddish and black.

8. H. solicauda, n. sp.

Euchromia (Eucereon) tetragamma, var. β, and fem.? Walker, Lep. Het. i. p. 268.

♂, ♀. Honduras (Dyson).

Types, B.M.

This is altogether a paler species (that is to say, with more white colouring in the wings) than the two preceding it.

Genus Acridopsis, n. gen. Pl. XXIX. fig. 14.

Allied to the preceding genus; wings alike in both sexes, the first subcostal branch of secondaries wanting, but the false radial and its recurrent continuation present; lower discocellular reduced almost to a point; lower radial curved; costal margin slightly excavated.

Type A. latifascia, Walker.

 Acridopsis latifascia=Eucerea latifascia, Walker, Lep. Het. vii. p. 1639.

Pará (Bates).

B.M.

Excepting in the coloration of the body, this species is much like *Heliura solicauda*.

2. A. Marica = Sphinx marica, Cramer, Pap. Exot. i. pl. 20. f. F, G. Pará (Graham). Two examples, B.M.

Confounded by Walker with the next species.

3. A. GRYLLOIDES = Euchromia (Eucereon) grylloides, Walker, Lep. Het. i. p. 271.

Pará (Graham).

Type, B.M.

4. A. THALASSICA=Eucerea thalassica, Felder, Reise der Nov. Lep. iv. pl. cii. fig. 18.

Genus Telioneura, Felder. Pl. XXIX. fig. 12.

1. Telioneura subplena = Euchromia (Eucereon) subplena, Walker, Lep. Het. i. p. 266.

Rio Janeiro (Stevens).

Type, B.M.

This appears to be referable to Felder's genus, although different in colour.

- 2. T. GLAUCOPIS, Felder, Reise der Nov. Lep. iv. pl. cii. fig. 31.
- 3. T.? coras = Sphinx coras, Cramer, Pap. Exot. iv. pl. 312. f. A. Surinam.

The Acharia brunnus of Hübner's 'Verzeichniss' will be the type of that genus, not because it is the first species (as Scudder seems to think that I imagine to be the rule), but owing to Walker's action at p. 274 of his 'Catalogue:' he moreover refers A. coras to Automolis with a?

Genus Creatonotus, Herrich-Schäffer (restricted).

Pl. XXIX. fig. 23.

1. CREATONOTUS INCERTUS, Herrich-Schäffer, Auss. Schmett. i. fig. 503.

Automolis reducta, Walker, Lep. Het. vii. p. 1638.

Fifty miles W. of Rio Janeiro (Sir W. Smith).

B.M.

This is one of the most remarkable species of the group.

Genus Automolis, Hübner. Pl. XXIX. fig. 25.

Euplesia, Felder; Eucyrta (part), Felder.

 AUTOMOLIS SPHINGIDEA = Glaucopis sphingidea, Perty, Delect. Anim. pl. 31, f. 12.

Pará (Bates).

B.M.

Walker referred this species to his group Dipænæ.

2. A. VITTIGERA = Felder, Reise der Nov. Lep. iv. pl. cii. fig. 9. Ega (Bates). B.M.

Closely allied to the preceding species.

3. A. FULGURATA, n. sp.

Frons black, metallic green behind the palpi, crest with a transverse orange line; top of head black with a large, central, metallic-green spot, and an orange stripe on each side; collar black in the middle, orange on each side; pterygodes orange, a black spot on the shoulders; thorax black, clothed with brown hairs; abdomen jet-black, with lateral and dorsal metallic-green spots: wings purplish brown, primaries with the nervures pale brown; a broad central orange streak from base of inner margin to upper radial, the line of which it follows, and tapers to near outer margin; secondaries with the costal area almost to apex occupied by a sharply defined orange patch: body below black, pectus spotted with metallic green, trochanters of front pair of legs with a central orange dot; venter with lateral green dots, the three basal segments with a double parallel series of orange spots: expanse of wings 46 millims.

Espiritu Santo (Higgins).

Type, B.M.

4. A. Sypilus=Sphinx sypilus, Cramer, Pap. Exot. ii. pl. 99. f. A. Surinam.

This may be regarded as type of *Automolis*, since it is congeneric with the species proposed as type by Walker, 'Lep. Het.' vii. p. 1634.

5. A. PACKARDII, n. sp.

Euchromia (Dipænæ) Sypilus, Walker (nec Cramer), Lep. Het. i. p. 260. n. 106.

This species has two orange streaks in primaries, the one running from near the base to near the outer margin, the other from near costa (at external third) to outer margin; the shorter streak, therefore, is nearly parallel to, but slightly divergent from, the long one: expanse of wings 38 millims.

Pará and Ega (Bates).

Type, B.M.

Nearly allied to the preceding species.

 A. FLAVICINCTUS = Creatonotus flavicinctus, Herrich-Schäffer, Auss. Schmett. i. fig. 433.

Automolis angulosa, Walker, Lep. Het. vii. p. 1634.

Bogota (Stevens).

B.M.

7. A. PRÆTEXTA = Eucyrta prætexta, Felder, Reise der Nov. Lep. iv. pl. cii. fig. 6.

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8. A. CONTRARIA = Euchromia (Dipænæ) contraria, Walker, Lep. Het. i. p. 259, n. 104.

Ega (Bates).

Type, B.M.

9. A. GEOMETRICA=Eucyrta geometrica, Felder, Reise der Nov. Lep. iv. pl. cii. fig. 6.

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Evidently allied to the preceding species.

10. Automolis ameoides, n. sp.

Head black, from metallic blue-green; collar nearly yellow, with blueblack dorsal and lateral streaks; pterygodes yellow; thorax yellow with a central longitudinal metallic-blue streak; basal segments of abdomen yellow, anal segments black, all the segments with lateral, and the anal segments with dorsal metallic blue-green spots: wings mealy yellow; primaries with a dark-edged dove-coloured border from apex to external angle (whence it throws off a broad oblique band to centre of costa) and along the inner margin nearly to the base; secondaries with a broad (internally sinuated) external chocolate-brown border, tapering along abdominal margin to near the base: pectus black, spotted with metallic green; trochanters of front legs with a large yellow central spot; tibiæ and tarsi of all the legs with a lateral creamy whitish line; venter yellow transversely banded with metallic green; anus black-brown, spotted with green: wings nearly as above; borders and central band of primaries darker: expanse of wings 53 millims.

Ecuador (Buckley).

Type, B.M.

The genus *Pionia* of Walker would perhaps be best placed here; it differs very little in structure from the following group; Walker, however, placed it between *Hydrusa* and *Phauda*.

Genus Pompostola, Hübner.

P. hyparchus of Cramer is type as determined by Walker.

1. Pompostola hyparchus = Zygana hyparchus, Fabricius, Sp. Ins. ii. p. 160.

Sierra Leone (Morgan), Ashanti.

B.M.

2. P. SEMIAURATA = Euchromia (Pompostola) semiaurata, Walker, Lep. Het. i. p. 207. n. 3.

Sierra Leone (Foxcroft) and "--?"

Type, B.M.

3. P. VICARIA = Euchromia (Pompostola) vicaria, Walker, Lep. Het. i. p. 207. n. 2.

Ashanti and Sierra Leone (Foxcroft).

I think it quite possible that the genus *Diospage* is not structurally distinct from this group; it contains the two species *D. rhebus*, and *auratus* of Cramer; but we have representatives of neither in the British Museum.

Genus Belemnia, Walker. Pl. XXIX. fig. 24.

1. Belemnia eryx, Fabricius, Sp. Ins. ii. p. 161. n. 22. Brazil (Miller).

B.M.

B. CRAMERI, Butler, Ann. & Mag. Nat. Hist. ser. 4. vol. xv. p. 339.
 Sphinx inaurata, Cramer (nec Sulzer), Pap. Exot. iii. pl. 140. figs. E, F.

Santa Catharina (Becker), Pará and Tapajos (Bates), Honduras (Mil/er).

Type, B.M.

The colouring of the body in Hübner's figures of "Chrysaor eryx" is more like the Fabrician species; otherwise I should have supposed them to represent B. Crameri.

3. B. INAURATA=Sphinx inaurata, Sulzer, Hist. Ins. pl. 20. fig. 4. "America."

The male of this species has the hinder segments of the abdomen blue, as in B. Crameri; otherwise it is more like the succeeding species.

4. B. Jovis, Butler, Ann. & Mag. Nat. Hist. ser. 4. vol. xv. p. 339. Honduras (Miller), Veragua (Salvin). Type, B.M.

Genus Apiconoma, n. gen. Pl. XXIX. fig. 22,

Allied to Automolis, but the subcostals of secondaries branching from a footstalk.

Type A. opposita, Walker.

 APICONOMA APICALIS = Euchromia (Dipænæ) apicalis, Walker, Lep. Het. i. p. 261.

Pará (Bates).

Type, B.M.

 A. OPPOSITA = Euchromia (Dipænæ) opposita, Walker, Lep. Het. i. p. 260.

Automolis saturata, Walker, Lep. Het. vii. p. 1635.

Euplesia ochrophila, Felder, Reise der Nov. Lep. iv. pl. cii. f. 10. Brazil (Argent). Type, B.M.

3. A.? VENTRALIS = Glaucopis ventralis, Guérin, Ic. Règne Anim. p. 503.

Mexico.

 A. Semirosea = Automolis semirosea, Walker, Lep. Het. Suppl. i. p. 103.

Ega (Bates).

Type, B.M.

This species has somewhat the aspect of a Noctua.

Genus Rhipha, Walker. Pl. XXIX. fig. 21.

Apyre and Arara, Walker; Eucyrta (part), Felder.

The species which I have here grouped together agree in venation, but are very dissimilar in coloration. I shall refer them to three sections under Walker's names.

Sect. 1. Arara, Walker.

1. Rhipha vittipes = Arara vittipes, Walker, Lep. Het. iii. p. 642. Brazil (Stevens). Туре, В.М.

General colouring of *Apiconoma semirosea*, but in pattern more like *Cratoplastis diluta* of Felder.

Sect. 2. APYRE, Walker.

R. SEPARATA = Apyre separata, Walker, Lep. Het. ii. p. 491.
 Ega (Bates). Type, B.M.

Excepting that the primaries are veined with whitish and not barred with yellow, this species has somewhat the aspect of *Apiconoma opposita*.

Sect. 3. Rhipha, Walker.

3. R. strigosa = Euchromia (Rhipha) strigosa, Walker, Lep. Het. i. p. 273.

Eucyrta subulifera, Felder, Reise der Nov. Lep. iv. pl. cii. fig. 3.

Rio Janeiro (Stevens). Type, B.M.

The wings of this species are peculiar in marking; I know of nothing similarly coloured; the body, however, approaches Eucereon and Galethalea.

Genus Empusa, Hübner.

1. Empusa vitrea = Phalæna vitrea, Cramer, Pap. Exot. iii. pl. 276. fig. C.

Rio Janeiro (Stevens).

B.M.

2. E. Tybris = Phalæna tybris, Cramer, Pap. Exot. iii. pl. 92. fig. D. Surinam.

Eucyrta albicollis of Felder is probably a third species of this genus.

Genus Galethalea, n. gen.

General aspect of *Halesidota*, excepting in the abdomen, which is like that of *Eucereon*; venation of *Charidea*; but the more robust thorax and longer antennæ preclude the possibility of referring it to that group.

Type *G. pica*, Walker.

1. GALETHALEA PICA = Halesidota pica, Walker, Lep. Het. iii. p. 743. n. 19.

Rio Janeiro (Stevens).

Type, B.M.

2. G. TIGRATA = Charidea tigrata, Herrich-Schäffer, Auss. Schmett. i. Brazil?

Unfortunately I have lost my reference to the figure of this species.

 G. CONFINIS = Charidea confinis, Herrich-Schäffer, Auss. Schmett. i. pl. 51. fig. 277.
 Brazil.

Walker made a decided mistake in attempting to correct Herrich-Schäffer's view respecting this species; for although unlike *Charidea* in colouring, the structure is almost identical.

Genus Cercopimorpha, n. gen. Pl. XXIX. fig. 16.

Allied to Galethalea and to Acridopsis, differs from the latter as regards neuration as follows:—subcostal branches placed upon a footstalk; lower discocellular short, but well defined; radial nearly straight; false radial running clear of the true radial, its recurrent continuation extending to base of median nervure.

Type C. homopteridia, n. sp.

1. CERCOPIMORPHA HOMOPTERIDIA, n. sp. Euchromia (Anycles) pectinata, var.?, Walker, Lep. Het. i. p. 254. Pará (J. P. G. Smith & Bates).

Type, B.M.

An obscure-looking species, with the general aspect of an Homopterous insect. It has nothing to do with Gmelin's species.

Genus Anycles, Walker. Pl. XXIX. fig. 15.

Dipænæ and Pelochyta, Walker (nec Hübner).

 Anycles contenta = Euchromia (Dipænæ) contenta, Walker, Lep. Het. i. p. 258.

Dipænæ lateralis, Walker, Lep. Het. vii. p. 1634.

Pará (Bates).

Type, B.M.

2. A. RHODURA, n. sp.

Euchromia (Dipænæ) acharon, var.?, Walker, Lep. Het. i. p. 258. Pará (Bates). Four examples, B.M.

The Z. acharon of Fabricius is a Procris from Australia. This will be the type of the genus.

3. A. FERRUGINOSA = Euchromia (Dipænæ) ferruginosa, Walker, Lep. Het. i. p. 259.

---- ?

Type, B.M.

I much doubt if this species will ever be recognized; the type is in bad condition.

4. A. Mœsta = Euchromia (Dipænæ) mæsta, Walker, Lep. Het. i. p. 259.

--- ?

Type, B.M.

A. DIFFINIS = Pelochyta diffinis, Walker, Lep. Het. Suppl. i. p. 105.
 Pará (Bates). Type, B.M.

Mr. Walker places Hübner's first species of *Pelochyta* at the end of his group Dipænæ; it seems to me, however, to be a *Eucereon*; therefore Walker's genus *Amerila* must give place to *Pelochyta*, Hübner.

Genus Metanycles, n. gen. Pl. XXIX. fig. 19.

Allied to the preceding genus and to *Cercopimorpha*; in neuration it differs from the latter in the arrangement of the subcostal branches of secondaries, the first being emitted from the nervure some distance before the end of the cell, and the second at the anterior extremity; the upper discocellular is also subangulated.

Type *M. contracta*, Walker.

1. METANYCLES CONTRACTA = Aclytia contracta, Walker, Lep. Het. Suppl. i. p. 102.

Sierra Leone (Foxcroft).

Type, B.M.

Genus Epanycles, n. gen. Pl. XXIX. fig. 18.

Allied to Anycles, which it resembles, but only differs from Cerco-

pimorpha in neuration as follows:—cell longer, radial more curved, second and third median branches not emitted from a footstalk, but (with the radial) from posterior extremity of cell.

Type E. imperialis, Walker.

 EPANYCLES IMPERIALIS = Euchromia (Pampa) imperialis, Walker, Lep. Het. i, p. 241.

Tapajos, Santarem, and Ega (Bates).

Type, B.M.

Genus Sciopsyche, n. gen. Pl. XXIX. fig. 20.

Wings long, narrow, subhyaline, neuration of secondaries only differing from *Epanycles* in the following respect—branches of the subcostal nervure emitted together from the anterior extremity of the cell, and not from a footstalk; the three medians and the radial are emitted from the cell exactly as in *Epanycles*; antennæ very strongly plumose, more especially in the males.

Type S. tropica, Walker.

1. Sciopsyche tropica = Euchromia (Calonotos) tropica, Walker,

Lep. Het. i. p. 236.
Santa Martha (Bouchard), Ega and Santarem (Bates), Brazil (Becker), Honduras (Dyson).

Type, B.M.

2. S. CINEREA, n. sp.

Primaries semitransparent, black, with the nervures black, a dull metallic greenish spot at base; secondaries hyaline, with grey borders: head thorax, and antennæ black; frons, back of head, and front margin of prothorax minutely dotted with metallic green (only noticeable with a lens); abdomen dark grey, light grey at the sides, with one or two lateral minute green dots: primaries below paler than above, with a bright metallic-green streak along the subcostal nervure; secondaries with a green streak along basal half of costal area and abdominal margin: expanse of wings 38 millims.

Espiritu Santo (Higgins).

Type, B.M.

We have two examples of this species; it is allied to Walker's S. tropica, but is altogether duller in colour and more transparent, the body having scarcely any metallic colouring upon it.

Genus Androcharta, Felder.

1. Androcharta Meones=Sphinx meones, Cramer, Pap. Exot. iv. pl. 325. f. E.

Glaucopis comta, Sepp, Surinam. pl. 37.

Bogota (Stevens), Santa Martha (Bouchard).

♂ et 2, B.M.

- 2. A. BRASILIENSIS, n. sp.
- Q. Allied to the preceding species, but duller, the metallic-green spots on the abdomen smaller; no cream-coloured spots on the shoulders primaries with a well-defined hyaline white spot just beyond the middle of the cell; the usual spot below the cell larger; the large discal spot rounded, bifid, only cut by the third median branch: expanse of wings 47 millims.

Brazil.

Two examples, B.M.

This species was confounded with the preceding by Mr. Walker; but it is readily distinguished by the absence of the whitish shoulder-spots, as also by the other characters above mentioned.

- 3. A. DIVERSIPENNIS = Euchromia (Hippola) diversipennis, Walker, Lep. Het. i. p. 225. n. 34.
- ♂. Tapajos (Bates).

Type, B.M.

This species and the following have no white shoulder-spots.

- 4. A. STRETCHII, n. sp.
- d. Allied to the preceding species, but the male with much larger secondaries; no scarlet spots on metathorax and base of abdomen; the metallic spots much more bluish; primaries with only one very small scarlet stria at base below the median nervure, the discoidal cell metallic blue-green, with the usual hyaline white spot, also a green line below the scarlet submedian litura; an interno-median oblique hyaline white spot towards the base; large discal hyaline patch, almost equally broad at both extremities; secondaries white, base and costal area brownish: primaries below with a large interno-median white patch as in A. meones (in A. diversipennis it is brown), no scarlet costal streak: expanse of wings 49 millims.
- 2. Chiefly differs from the male in the larger interno-median spot of primaries, the rounded hyaline discal spot, the normal female secondaries, and in the presence of crimson spots at base of abdomen in the centre: expanse of wings 46 millims.
- J, Tabatinga, Peru (Degand); St. Paulo, Amazons (Bates),

Type, B.M.

This species and the following are probably found over the same or nearly the same region; they cannot, however, be easily confounded together, as the secondaries in A. Stretchii \mathcal{S} are large as in A. meones; but A. parvipennis is probably the Upper-Amazon type of A. diversipennis, and has the same small male secondaries.

- 5. A. PARVIPENNIS, n. sp.
- 3. Only differs from A. diversipennis in the more oblique and trifid

discal hyaline spot of primaries, and the smaller discoidal spot: expanse of wings 43 millims.

- ♀. Very like A. meones ♀, but without the white shoulder-spots, and
 with an oblique trifid or even quadrifid hyaline discal patch in primaries: expanse of wings 47 millims.
- ♂, St. Paulo (Bates); ♀, Ega (Bates), Tabatinga (Degand).

Type, B.M.

It is a curious circumstance that our male A. Stretchii came in the same Peruvian collection with female A. parvipennis, and our male A. parvipennis in the same St.-Paulo collection with A. Stretchii \mathcal{P} . Still the localities are not widely sundered; and therefore the value of the two species need not on that account be called in question. The genus may be divided as follows:—

Div. A. Secondaries of male large.

- a. Shoulders of both sexes cream-coloured A. meones.
- b. Shoulders of both sexes black, discal spot of female rounded, scarlet abdominal spots small A. brasiliensis.
- c. Scarlet colouring obsolescent, dorsal abdominal spots only present at the base in both sexes; hyaline wing-spots larger.

A. Stretchii

Div. B. Secondaries of male small.

- b. Hyaline discal spot more oblique, trifid in male, sometimes quadrifid in female, subcostal hyaline spot small.

A. parvipennis.

The last two may prove to be synonymous; but if so, the species must have a tremendous range. Still there is no doubt that, at most, A. parvipennis can only be regarded as the Upper-Amazon type of Walker's species, although the appendices of the male differ as much as in the other forms in this genus.

 A.? LATERALIS = Euchromia lateralis, Guérin, Ic. Régne Anim. p. 503.

Pará.

Genus Scepsis, Walker.

This genus scarcely differs from *Sciopsyche* in the neuration of secondaries; I only know one species of the group, although I have little doubt that several species recently described by American authors are referable to it.

1. Scepsis fulvicollis=Glaucopis fulvicollis, Hübner, Samml. exot. Schmett. i. pl. 164. figs. 1-4.

Glaucopis semidiaphana, Harris, Descr. Cat. Am. Sph. p. 38.

E. Florida (Doubleday), Canada West.

B.M.

Subfamily CTENUCHIIN E. (See notes at end of this genus.)

Genus Philoros, Walker.

1. PHILOROS RUBRICEPS=Ctenucha (Philoros) rubriceps, Walker, Lep. Het. ii. p. 283.

New Granada (Jurgens), Venezuela (Becker).

Type, B.M.

P. NEGLECTA = Tipulodes neglecta, Boisduval, Astrolabe, pl. 3. f. 8.
 Peru.

B.M.

In one of the boxes of Lepidoptera obtained through the sale of Mr. Norris's collection, I found an example of *P. neglecta* labelled "peruviana" in Mr. Walker's handwriting; but I feel uncertain as to whether it is described under that name.

3. P. venosa=Ctenucha (Philoros) venosa, Walker, Lep. Het. ii. p. 284.

Venezuela (Becker), Mexico (Glennie).

Type, B.M.

 P. RUFICEPS=Ctenucha (Philoros) ruficeps, Walker, Lep. Het. ii. p. 284.

Mexico (Hartweg).

Type, B.M.

Thus I conclude the first genus of typical Ctenuchinæ; but whether this subfamily is sufficiently distinct to be separated from the Charideinæ I will not decide; in venation it most nearly approaches *Charidea* and the allied genera.

In order that I may clear up satisfactorily the position of some of Walker's species, I will enumerate, so far as I know them, the forms referable to various genera of Ctenuchinæ, and (following on from *Philoros*) will arrange them in what appears to me to be their natural order.

Genus CTENUCHA, Kirby.

Includes Ctenucha latreillana, Kirby; Automolis inornata, Walker; Glaucopis rubroscapus, Ménétriés (Apistosia? multifaria, Walker); and Glaucopis bombycina, Perty. We also have an undetermined species from Mexico.

Genus Leucopsumis, Hübner.

Includes *Phalæna collaris*, Drury, *P. circe*, Cramer, and five undermentioned species confounded with them by Walker.

Genus Epidesma, Hübner.

Phalæna ursula, Cramer.

With this species Walker confounded an insect with a white band across primaries and quite distinct neuration.

Genus ONYTHES, Walker.

Onythes pallidicosta, Walker.

Excepting in the shape of the secondaries and more plumose antennæ, this genus scarcely differs from the preceding.

Genus Cratoplastis, Felder.

Includes Cratoplastis diluta, Felder, and Automolis crassa of Walker.

Genus Theages, Walker.

Theages leucophæa, Walker, Zygæna scyton, Fabricius, Theages quadricolor, Walker.

This genus is closely allied to, if, indeed, distinct from, the following.

Genus Eucereon, Hübner.

Contains Sphinx pierus, Cramer; Carales abdominalis, Walker; Phalæna setosa, Sepp; Euchromia varia, Walker; Sphinx Archias, Stoll; Sphinx Sylvius, Stoll; Euchromia rosa, Walker; Euchromia rosina, Walker; Carales imprimata, Walker; Halesidota strigosa, Walker; with three other undetermined species.

Genus Percote, Walker.

Percote signatura, Walker, and Sphinx arontes, Cramer.

Genus Hyaleucerea, Butler.

Includes Glaucopis erythrotelus, Walker, and H. vulnerata, Butler.

Genus Lymire, Walker.

Lymire melanocephala, Walker, from Jamaica.

Genus Thysanoprymna, Butler.

Eucerea pyrrhopyga, Walker, from Brazil.

New genus.

Includes Phragmatobia albicosta, Walker, from Mexico.

Genus Gippius, Walker.

Gippius sumptuosus, Walker, from Honduras.

New genus allied to GLANYCUS.

Includes Glanycus nigro-rufus, Walker, from Bogota.

Genus GLANYCUS, Walker.

Glanyous insolitus, Walker, said to come from Silhet.

Genus Scaptius, Walker.

Scaptius ditissimus, Walker, from Ega.

Genus Evius, Walker (restricted). See Neritos.

Contains Evius auro-coccineus, Walker, from Para, and Phalæn Hippia of Stoll. P. bifasciata of Cramer is unknown to me.

Genus Idalus, Walker.

Phalæna admirabilis of Cramer, and Idalus rufo viridis of Walker, from Bogota.

Genus Neritos, Walker (remodelled).

Neritos repanda, Walker, from Rio; Phalæna psamus, Cramer; Evius flavo-roseus, Walker, from Honduras; and a new species confounded with the latter, from Para.

Genus AMAXIA, Walker.

Amaxia pardalis, Walker, from Ega.

Genus Baritius, Walker.

Baritius discalis, Walker, from Rio Janeiro.

Genus Elysius, Walker (restricted).

Contains E. conspersus, Walker, from Para; this may be con-EINN. JOURN.—ZOOLOGY, VOL. XII. 31 sidered the type. The other species associated with it by Walker, are clearly not congeneric. I have hitherto seen none of them.

Genus PITANE, Walker.

Pitane fervens, Walker; no locality given. This genus is closely allied to the preceding, although placed by Walker in the Lithosiidæ, and said to be allied to the Noctuidæ.

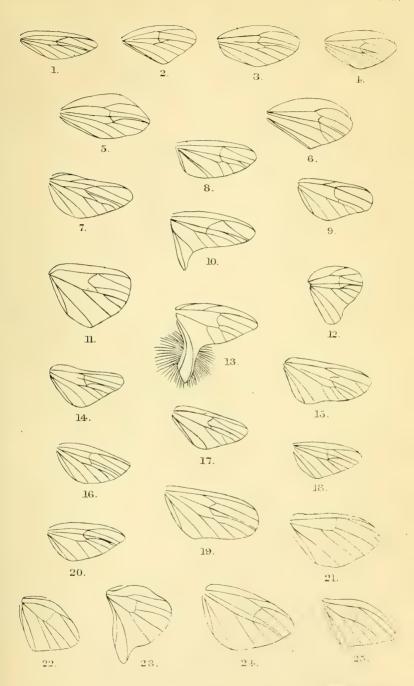
Genus Ammalo, Walker (remodelled).

Ammalo fervidus, Walker (Halesidota megapyrrha, part, Walker); Phalæna helops, Cramer, confounded by Walker with A. fervidus and H. megapyrrha; and H. chrysogaster, Walker, from Bogota.

Walker originally described his A. fervidus from a large Q example purchased at the sale of Mr. Milne's collection; he, however, took the measurements from two poor specimens of the $Phalana\ helops$ of Cramer without any locality-tickets; but as he neglected to label his type, it got mixed up with the other Arctiidæ in the collection; and the label appeared in the cabinet with no specimens to represent Walker's species. In his Supplement, Walker referred the three examples to Halesidota, and described them again as $Halesidota\ megapyrrha$, with the addition of a fourt! example from St. Domingo, which seems to have suggested to him the locality "N. America"! In this instance the description is taken from one of the representatives of P. helops.

But the confusion does not end here. In the interim between the appearance of the Catalogue and its Supplement, a fine new species of Apantesis, Walker*, was added to the collection, and by chance was placed above the label "Ammalo helops;" therefore, in the Supplement, Mr. Walker described, as a new species of Ammalo, an insect somewhat resembling the supposed A. helops in appearance (although referable to a distinct genus), but which, of course, has nothing whatever in common with the Phalæna helops of Cramer or the Ammalo fervidus of Walker. This supposed new Ammalo is labelled as coming from "Nauta," on the Amazons, wrongly read by Walker as Nanta; he therefore names it Ammalo nantana. But, unfortunately, it is now known that the insects said to have come from Nauta were all collected in E. Peru; so that Walker's designation ought to drop, unless it be accepted as a nonsense name.

^{*} I may here remark that Aloa colorata of Walker is identical with Apantesis radians, the type of Walker's genus.



Subsequent to the publication of the Supplement, Mr. Walker seems to have discovered that two of the examples referred by him to Halesidota megapyrrha were identical with Cramer's Phalæna helops; for he separated the specimens by the addition of written labels, suggesting as a name for the St.-Domingo species (A. fervidus of Walker) the new designation of Halesidota impunctus (sic); whether he has published the latter name I have not hitherto been able to ascertain, but probably not.

Genus MAZERAS, Walker (enlarged).

Mazæras conferta, Walker, from Venezuela, and Halesidota sanguineata, of Walker, from Bogota.

Genus AMELES, Walker (enlarged).

Ameles rubriplaga, Walker, from Venezuela, and Halesidota palpalis, Walker, from Jamaica.

Then will follow Halesidota and other well-known groups of the family Arctiidæ.

EXPLANATION OF PLATE XXIX.

- Fig. 1. Neuration of secondaries of Chloropsinus.
 - 2. Ditto of Illipula.
 - 3. Ditto of Ceramidea.
 - 4. Ditto of Passineura.
 - 5. Ditto of Antichloris.
 - 6. Ditto of Eriphia.
 - 7. Ditto of Aclytia.
 - 8. Ditto of Ixylasia.
 - 9. Ditto of Heliura apicalis.
 - 10. Ditto of Pterygopterus.
 - 11. Ditto of Charidea.
 - 12. Ditto of Telioneura.
 - 13 & 17. Ditto of Heliura solicauda.
 - 14. Ditto of Acridopsis.
 - 15. Ditto of Anycles.
 - 16. Ditto of Cercopimorpha.
 - 18. Ditto of Epanycles.
 - 19. Ditto of Metanycles.
 - 20. Ditto of Sciopsyche.
 - 21. Ditto of Rhipha.
 - 22. Ditto of Apiconoma.
 - 23. Ditto of Creatonotus.
 - 24. Ditto of Belemnia.
 - 25. Ditto of Automolis.